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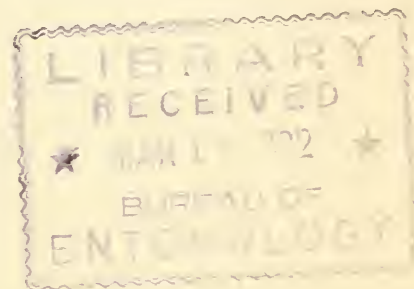
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THE INSECT PEST SURVEY BULLETIN

A periodical review of entomological conditions throughout the United States
issued on the first of each month from March to December, inclusive.



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THE MORE IMPORTANT RECORDS FOR JANUARY AND FEBRUARY, 1932

The abnormally mild winter temperatures that prevailed over the greater part of the Eastern and Southern States and the unusually early spring are closely associated with a number of very unusual insect conditions in many parts of the United States.

Naturally, following the very serious grasshopper devastations of last year, these insects are attracting a good deal of attention. An abundant snowfall in the West Central and North Central States and comparatively mild temperatures over the southern part of this area are accompanied by a very high survival of grasshopper eggs in Wisconsin and the Dakotas. Egg capsules collected in North Dakota and brought into the laboratory gave a 95 per cent hatch.

In the extreme South cutworm moths have been observed practically all winter, and during the months of January and February cutworms have occasioned very considerable damage throughout the Gulf region.

Owing to very favorable winter conditions, the Hessian fly seems to be present in threatening numbers in many parts of the East Central States, as is also the chinch bug. The latter insect is in hibernation quarters in excellent condition from Illinois westward.

In the South Atlantic States, from Virginia to Georgia and Mississippi, the green bug is more prevalent than it has been for many years and is causing some injury in isolated fields.

The sugarcane borer did not hibernate this winter in the cane fields of Louisiana, but active larvae were found all winter.

A high survival of codling moths is reported from New York to Georgia westward to Illinois and Missouri.

The large populations of the San Jose scale that built up during 1931 have apparently passed the winter with very low mortality. The insect is quite generally reported as increasingly abundant from New York to Georgia and westward to Illinois, Michigan, and Missouri.

Overwintering larvae of the oriental fruit moth began pupating early in February and by the end of the month over 11 per cent of the overwintering larvae had pupated in Georgia and adults were starting to emerge.

In the Gulf district of Alabama and Mississippi the vegetable weevil has attracted probably more attention than any other truck-crop insect. This comparatively newly introduced pest is continuing to spread northward.

The mild, dry winter along the South Atlantic seaboard from North Carolina to Georgia, and around the Gulf to Mississippi, resulted in what appears to be an unprecedented outbreak of the false chinch bug. The insect severely injured many garden crops, particularly mustard, turnip, carrot, cabbage, and lettuce.

The open winter also made it possible for the imported cabbage worm and the diamond-back moth to continue work throughout the winter, resulting in very serious damage in many of the winter-truck-growing sections from Virginia southward to Georgia and around the Gulf to Texas. Over much of this region cabbage was also infested by the cabbage looper, the cabbage webworm, and the cabbage aphid.

The harlequin bug was more or less active all winter in Virginia, and newly laid eggs were observed in the field in the Norfolk district during the last week in January and the first week in February. Probably owing to this mild winter, the insect is reported as unusually abundant in the Southeastern and Gulf States.

Canker worms began emerging during the first week in January in eastern Kansas. There was a very heavy emergence of the fall canker worm during the second week in February, and a similarly heavy emergence of the spring canker worm during the fourth week of February.

In that part of the lower peninsula of Michigan where walkingsticks defoliated large areas in 1930, the eggs did not hatch during 1931, and at the present time are so numerous that in some places as high as 50 eggs to the square foot are found beneath the trees.

The boxelder bug has been very troublesome in the northern part of its range from Maryland to Iowa. The early warm weather has aggravated the nuisance of the entry of houses by these insects.

Buffalo gnats appeared in the Mississippi Delta about the middle of January, which is probably the earliest record of the appearance of this insect in that district. They have not, so far, been unusually abundant.

GENERAL FEEDERS

GRASSHOPPERS (Acrididae)

- Virginia C. R. Willey (February 23): Schistocerca americana Drury is moderately abundant. Many were seen in the woods on January 23 while hunting at Alberta, Brunswick County. The grasshoppers would fly up like birds and take to the trees.
- Georgia J. B. Gill (February 22): Adults of Melanoplus femur-rubrum DeG. and other species have remained active during the winter.
- Florida J. R. Watson (February 23): S. americana is moderately abundant over all Florida.
- Wisconsin E. L. Chambers (February 24): While we have no definite data on the overwintering of grasshoppers, the snow in the light sand areas usually most heavily infested has been sufficient to afford quite favorable winter protection, while the southern half of the State has as yet had practically no snow and very frequent and radical changes from sub-zero to very high temperatures, which should be very unfavorable for survival.
- North Dakota J. A. Munro (February 23): Of the various insects of economic importance, grasshoppers of the destructive species are causing the most concern. Samples of soil containing thousands of grasshopper eggs, sent in recently from infested areas, indicate that the eggs are wintering over in almost perfect condition. When reared in an incubator these eggs showed a 95 per cent hatch. Pembina, Walsh, and Grand Forks Counties were the most seriously infested with grasshoppers during the past season.
- Missouri L. Haseman (February 22): Eggs are abundant and a large percentage of them seem to be in good condition.
- K. C. Sullivan (February 19): Grasshopper eggs are very abundant in western and northwestern Missouri.
- Kansas H. B. Hungerford (February 23): Nymphs are moderately abundant.
- Mississippi C. Lyle and assistants (February): Grasshoppers were moderately abundant all winter in Monroe County; a few were observed in January in Panola County. S. americana can still be seen flying in George County. (Abstract, G. M.)
- Wyoming A. G. Stephens (February 18): Grasshoppers have been reported scarce in northeastern Wyoming; although some have been noted.

CUTWORMS (Noctuidae)

- South Carolina J. N. Tenhet (January 15): Cutworms are unusually abundant for this season of the year; and are severely injuring many gardens in Fairfax.
- A. Lutken (February 22): Cutworms have been very destructive to truck crops in the southeastern section of the State during January and February.
- Florida H. T. Fernald (February 25): Cutworm moths of a number of kinds have turned up at lights nearly all winter at Orlando.
- Tennessee H. G. Butler (February 26): Some injury to buds around Harrihan has recently occurred but the damage so far is not serious.
- Alabama J. M. Robinson (February 23): Cutworms are very abundant at Ozark and Auburn, where Austrian peas have been destroyed.
- Mississippi C. Lyle and assistants (February): The black cutworm (Agrotis ypsilon Rott.) was reported as moderately abundant on English peas in southern Jackson County, February 12; the variegated cutworm (Lycophotia margaritosa saucia Hbn.) was found moderately abundant on cabbage at Wiggins. (Abstract, G.M.)

COMMON RED SPIDER (Tetranychus telarius L.)

- Georgia O. I. Snapp (February 18): Red spiders are unusually abundant on ornamental plants in a nursery at Fort Valley and also on some plantings around homes. They have caused some injury.
- Mississippi C. Lyle and assistants (February): Complaints regarding injury to various ornamentals, citrus, and strawberry are being received from the southern half of the State. (Abstract, G.M.)

C E R E A L A N D F O R A G E - C R O P I N S E C T S

WHEAT

HESSIAN FLY (Phytophaga destructor Say)

- Illinois W. P. Wolcott (February 22): Conditions have been almost ideal for survival of the Hessian fly; and we anticipate an extremely heavy spring brood. Because of the very favorable growing conditions even heavily infested wheat was not damaged to any extent this year.
- Missouri L. Haseman (February 22): The Hessian fly situation is alarming. The open winter seems to be favoring the pest.

K. C. Sullivan (February 19): A Hessian fly survey carried on during February in 37 counties indicates that the average percentage of plants infested was 5.6. From 50 to 150 plants were collected from each county in the survey.

CHINCH BUG (Blissus leucopterus Say)

Illinois

W. P. Flint (February 22): Chinch bugs have come through the winter in very good condition. An infestation over the greater part of central and west-central Illinois runs from 150 to 600 bugs per 50 stalks of bunch grass. The most intense infestation was in the southern one-half of the State, extending from Menard and Logan Counties southward to Washington and St. Clair Counties, where infestation runs over 600 to 50 stalks.

Missouri

L. Haseman (February 22): In spite of wet weather the chinch bug seems to be wintering well.

K. C. Sullivan (February 19): The last two summers have been dry, almost ideal conditions for the development of chinch bugs, with the result that last fall large numbers went into hibernation. They may be found at the present time in practically every section of the State. A survey carried on during late January in which observations were made in 28 counties indicates that the average per acre population for the counties examined amounts to over 41,000,000 bugs.

ENGLISH GRAIN APHID (Macrosiphum granarium Kby.)

Maryland

F. M. Wadley (February 13): M. granarium, Toxoptera graminum Rond., and Rhopalosiphum prunifoliae Fitch have been noted on volunteer oats near Silver Spring at different times during the winter. On February 13 five wheat fields in lower Montgomery County were examined; M. granarium was found generally distributed, though usually only in small numbers, in all the fields. The other two species were found in some places, but only after considerable searching.

North Carolina

Z. P. Metcalf (February 26): The European grain aphid (M. granarium) has been reported from widespread localities throughout the State and in some sections has done considerable damage.

GREEN BUG (Toxoptera graminum Rond.)

Maryland

E. M. Cory (February): Apparently contributing to injury to winter wheat in Dorchester and Carroll Counties. Possibly present elsewhere in the State.

Virginia

W. J. Schoene (February 22): We have had a number of complaints about the green bug on wheat. These have come from a number of counties in each wheat-growing section and from Halifax County just out of the wheat belt. The county agents have reported that many wheat fields have been severely damaged.

C. R. Willey (February 23): There have been several reports lately of damage by grain aphids in Goochland County. I have examined fields of wheat in Shenandoah Valley counties, and find aphids fairly abundant in early-planted fields, but apparently doing no damage. The county agent of Rockingham County reported two fields of barley damaged. Fields between Richmond and Scottsville along James River are more or less infested, but apparently there has been no damage.

Georgia

O. I. Snapp (February 19): This insect is very abundant in some wheat fields and has caused considerable injury, especially at Marshallville.

Mississippi

H. Dietrich (February 21): The spring grain aphid was observed killing oats in a field near Lucedale in the middle of December and by the end of January the field was bare.

CORN

CORN EAR WORM (*Heliothis obsoleta* Fab.)

Florida

J. R. Watson (February 23): Corn ear worms are moderately abundant. There have been more complaints than usual for February.

CLOVER AND ALFALFA

TARNISHED PLANT BUG (*Lygus pratensis* L.)

Virginia

H. G. Walker (February 26): Tarnished plant bugs were observed actively feeding in alfalfa on February 4.

CLOVER SEED WEEVIL (*Tychius picirostris* Fab.)

Washington

Mr. W. Baker (January - February): Five specimens of *Miccotrogus picirostris* Fab. have been taken from cross growing in the close vicinity of Puyallup during January and February. The nine specimens taken on clover were from five separate localities in this vicinity.

SORGHUM

CORN LEAF APHID (*Aphis maidis* Fitch)

Louisiana

J. W. Ingran and E. K. Bynum (January 29): Wingless aphids have been found on sorghum throughout the winter. Winged forms were observed in small numbers on sorghum during the latter part of January. This aphid transmits sugarcane mosaic disease.

GRASS

SOD WEBWORMS (Crambus spp.)

Pennsylvania

H. E. Hodgkiss (February 25): There has been some activity during the winter; adults of sod webworms, species not ascertained, have been flying during the warmer periods, indicating an unusual condition.

RANGE CRANE FLY (Tibula simplex Doane)

California

E. O. Essig (February 15): The range crane fly, T. simplex, and other species are abundant in pasture lands in central California.

SUGARCANE

SUGARCANE BORER (Diatraea saccharalis Fab.)

Louisiana

T. E. Holloway and W. E. Haley (January 29): The extremely mild winter, with a minimum temperature of 42° F. in New Orleans up to this time, has resulted in unusual conditions. Sugarcane is 3 feet tall. The sugarcane borer is not hibernating, but larvae having the summer coloration are to be found in the corn and sugarcane plants. Pupae and large larvae were found in corn, but larvae in sugarcane are in the general not so far advanced. (February 17): The first generation of the year is now beginning. This is nearly three months earlier than normal. Egg clusters are to be found in the fields. Large larvae and pupae are plentiful. Sugarcane has remained green all winter, and some which was planted last August has already reached a height of from 5 to 6 feet.

W. A. Douglas (January 27): I collected and examined 400 rice stubs between January 18 and 22 to ascertain the percentage of hibernating larvae alive. In the 400 stubs I found 12 larvae, all alive.

J. W. Ingram and E. K. Bynum (January 29): Examinations were made to determine the number of live borer stages in sugarcane and volunteer corn during the latter part of the month. On a plantation near Houma it was estimated that volunteer corn contained 781 larvae and 166 pupae per acre as compared with 3,049 larvae and 363 pupae in C. P. 807 sugarcane and 435 larvae and 290 pupae in Co. 281 sugarcane.

E. K. Bynum (February 19): First-generation borers were found today feeding in the tops of several young shoots of sugarcane.

A WEEVIL (Anacetrus sp.)

Louisiana

J. W. Ingram and E. K. Bynum (January 29): The number of buds killed by a small weevil, Anacetrus sp., on sugarcane stubble is unusually high on one plantation. Further examinations will be made to determine whether the warm weather or other factors have favored weevil injury or whether the damage is local.

GRAY SUGARCANE MEALYBUG (Pseudococcus boninsis Kuw.)

Louisiana

J. W. Ingram and E. K. Bynum (January 29): Numbers of sugarcane mealybugs have been observed feeding on sugarcane above ground throughout the winter.

RICE

A BILLBUG (Calendra chittendeni Blatch.)

Mississippi
and
Missouri

H. Dietrich (February 21): Larvae were very common in rice stubble in the southern part of Perry County, Miss., in December. Emergence was observed February 11 at Webster Groves, Mo. (Det. A. F. Satterthwait).

F R U I T I N S E C T S

APPLE

CODLING MOTH (Carpocapsa pomonella L.)

New York

P. J. Parrott (February 23): Codling moths are very abundant in western New York.

West Virginia

L. M. Peairs (February 24): A good survival of codling moths is indicated.

Georgia

C. H. Alden (February 19): There is a heavy carry-over of hibernating larvae at Cornelia. Pupation started on the south side of trees under bands in orchards on February 10.

Illinois

W. P. Flint (February 22): Larvae in orchards are nearly all alive regardless of their location on the trunk or branches of the tree or on the ground. While the larvae going into winter quarters may have been slightly less than was the case in the fall of 1930, the very high survival will mean an extremely heavy first brood unless some unforeseen conditions cause the death of overwintering larvae before time of pupation and emergence.

Missouri

L. Haseman (February 22): An alarming carry-over of larvae has been observed.

Oregon

D. C. Mote (February): Larvae under tree bands overwintered in good condition.

APHIDS (Aphididae)

West Virginia

L. M. Peairs (February 24): Eggs of fruit aphids, species not known, are very abundant on apple at Martinsburg and Morgantown.

Virginia

C. R. Willey (February 23): A good many buds were found covered with young on February 11 and 13 at Timberville.

W. J. Schoene (February 22): The aphid eggs in apple trees are more numerous than for some years.

Oregon

D. C. Mote (February): More eggs are being found in orchards than usual in the central Willamette Valley.

APPLE APHID (Aphis pomi DeG.)

Pennsylvania

J. R. Stear (February 22): Eggs of the apple aphid and probably of the grain aphid (Rhopalosiphum prunifoliae Fitch) are abundant on apple at Ligonier. Owing to the long-continued warm weather last fall, the apple aphid increased in large numbers on apple foliage through October and November. This probably accounts for the large number of aphid eggs.

H. E. Hodgkiss (February 25): Eggs of the green apple aphid were laid abundantly last fall and it appears from our observations that there will be very heavy infestations of this insect during spring. Nymphs were hatching in January in Chester County.

ROSY APPLE APHID (Anuraphis roseus Baker)

Virginia

W. J. Schoene (February 22): Individuals were still alive in apple trees at Blacksburg after the first of January.

Pennsylvania

H. E. Hodgkiss (February 25): Eggs of the rosy apple aphid and grain aphid (R. prunifoliae) were laid abundantly last fall.

WOOLLY APPLE APHID (Eriosoma lanigerum Hausm.)

Kentucky

W. A. Price (February 24): Woolly apple aphids appeared above ground on apple trees at Hazard on February 8. In the southern part of the State this is a very important pest.

- Mississippi C. Lyle and assistants (February): Specimens were received on apple from New Albany on February 3, and from Three Rivers, February 19, and on crabapple from Magnolia, February 15. (Abstract, G.M.)
- SAN JOSE SCALE (Aspidiotus perniciosus Comst.)
- New York P. J. Parrott (February 23): The San Jose scale is very abundant in western New York.
- Pennsylvania H. E. Hodgkiss (February 25): The San Jose scale increased abundantly in 1931 and is a paramount pest in the Cumberland Valley region and in the western-tier counties of Pennsylvania.
- West Virginia L. M. Peairs (February 24): The San Jose scale is more abundant than usual at Morgantown and Martinsburg.
- North Carolina R. W. Leiby (February 20): The winter survival at Raleigh appears to be high. Crawlers were observed on February 8, which might indicate an extra generation this year. Such early activity of crawlers is unusual for the Moore County section.
- Georgia O. I. Snapp (January 20): The infestation at Fort Valley this winter is greater than it has been for many years. The very mild winter has permitted scale reproduction to continue uninterrupted. The omission of the dormant spray by some growers during recent years has also contributed to the increased infestation. There has not been the usual scale mortality from low temperatures this winter, and the percentage of live scale is unusually high. Of 9,500 scales examined, 8,605, or 90 per cent, were alive.
- C. H. Alden (February 19): The San Jose scale is very abundant at Cornelia; heavy infestation on both peach and apple.
- Florida E. W. Berger and G. B. Merrill (February 22): The San Jose scale is moderately abundant in northern and western Florida on peach and plum.
- Illinois W. P. Flint (February 22): The immature forms have come through the winter with one of the lowest mortalities on record. A few recent examinations show 60 to 70 per cent of the scale alive.
- Michigan R. H. Pettit (February 23): The San Jose scale is very plentiful.
- Missouri L. Haseman (February 22): The San Jose scale bred until late November. It is building up an alarming population.
- K. C. Sullivan (February 19): The scale is moderately abundant - 83 per cent alive in all parts of the State.

Tennessee H. G. Butler (February 26): Young scale insects were found February 25 beneath overwintering females. Not many young scales were present so I judge reproduction is just starting.

Mississippi C. Lyle and assistants (February): The San Jose scale has been reported from moderately abundant to very abundant from all over the State. (Abstract, G. M.)

Oregon D. C. Mote (February): Extension workers report scale increasing; it is very abundant.

California E. O. Essig (February 17): The San Jose scale is moderately abundant in the upper San Joaquin Valley only.

FLAT-HEADED APPLE TREE BORER (Chrysobothris femorata Oliv.)

Missouri L. Haseman (February 22): Flat-headed apple tree borers were more abundant last fall than usual and borers are carrying over in great numbers though they show considerable parasitism.

EUROPEAN RED MITE (Paratetranychus pilosus C. & F.)

Pennsylvania J. R. Stear (February 22): Eggs are very scarce, almost impossible to find.

H. E. Hodgkiss (February): The European red mite is again abundant following two years during which little damage was noticed.

PEACH

ORIENTAL FRUIT MOTH (Grapholitha molesta Busck)

Georgia W. H. Clarke (February 27): Overwintering larvae at Thomaston are beginning to pupate; one pupa found in the field; 1 per cent of larvae pupated in insectary (February 5); approximately 4 per cent of the larvae have pupated in the insectary, and a single adult female emerged today (February 5) (the earliest record taken for adult emergence in Georgia). To date (February 27) over 11 per cent of the overwintering larvae have pupated in the insectary, and over 1 per cent of the overwintering material has emerged as adults. The pupation and adult emergence dates given are the earliest ever observed in the study of this insect at Thomaston, and no doubt these are the records recorded for the State. The infestation in harvested fruits last year was only 25 per cent, the average of experimental plats.

PEACH BORER (Aegeria exitiosa Say)

Kentucky W. A. Price (February 24): Nearly full grown larvae were received from Louisville on February 12.

Mississippi

C. Lyle and assistants (February): The peach borer is reported from many parts of the State as seriously abundant this spring. Infestation in the north-central part of the State is reported as heavier than it has been for many years. (Abstract, J.A.H.)

PLUM CURCULIO (Conotrachelus nenuphar Hbst.)

Georgia

O. I. Snavely (February 19): Although this has been the warmest winter in 40 years, with a maximum temperature of 81° F. for February, the plum curculio has not yet appeared from hibernation at Fort Valley. Many trees near woods, abandoned fields, and other favored places of hibernation were jarred during February for the adults, but not a single individual was taken.

FULLER'S ROSE BEETLE (Asynonychus godmani Crotch)

Georgia

W. H. Clarke (February 27): This insect has been active the entire winter. Beetles by the hundreds have been found on peach trees throughout the middle Georgia area, although no feeding injury has been noted.

Virginia

H. G. Walker (February 26): Fuller's rose beetles were observed actively feeding on alfalfa on February 4.

BLACK PEACH APHID (Amuraphis persicae-niger Smith)

Maryland

H. D. Weihe (January 26): Aphids were collected on peach twigs January 24 in Prince Georges County near the District line.

West Virginia

L. M. Peairs (February 24): Black peach aphids were reported as moderately abundant at Morgantown; they were breeding actively outside, during January and February.

Kentucky

W. A. Price (February 24): Twigs of a 3-year-old peach tree at Mingo were well covered with the nymphs and winged forms on February 13.

WHITE PEACH SCALE (Aulacaspis pentagona Targ.)

Mississippi

W. L. Gray (February 17): This scale is very abundant in Adams County and moderately abundant in Jefferson County on peach and plum.

PLUM

RUSTY PLUM APHID (Hysteroneura setariae Thos.)

Mississippi

J. P. Kislanko (February 20): Eggs of the rusty plum aphid are very abundant in Wiggins, Stone County.

RASPBERRY

RASPBERRY FRUIT WORM (Byturus unicolor Say)

Washington W. W. Baker (January): More or less concrete evidence of a partial 2-year brood of this beetle was obtained at Puyallup this winter when three adults emerged from larvae collected in the field on March 9, 1931, the adults emerging on January 8 and 19, 1932.

PECAN

GIANT APHID (Longistigma caryae Harr.)

North Carolina R. W. Leiby (February 11): L. caryae is reported as very abundant on pecan trees in Wilmington.

Georgia J. B. Gill (February 22): This insect is active on pecan trees at Albany.

Alabama J. M. Robinson (February 23): Giant hickory aphids are reported from Troy, Opp and Andalusia.

Mississippi C. Lyle and assistants (February): Extremely heavy infestations on pecans have been reported from Pascagoula, Moss Point, and Hattiesburg. (Abstract, G.M.)

CITRUS WHITEFLY (Dialeurodes citri Ashm.)

Mississippi C. Lyle and assistants (February): The insect is present on Satsuma and extremely abundant on Cape jasmine in the southeastern part of the State. (Abstract, G.M.)

CITRUS APHID (Aphis spiraeicola Patch)

Florida J. R. Watson (February 23): The citrus aphid is not much in evidence. This seems to be due largely to the fungus Empusa fresenii, which usually checks the aphids in April.

H. T. Fernald (February 25): The citrus aphid has appeared at Orlando on some of the new growth recently, but so far is not serious, though if we do not get rain soon I fear it may become so.

COTTONY-CUSHION SCALE (Icerya purchasi Mask.)

Georgia J. B. Gill (February 22): Outbreaks on citrus trees and ornamentals were reported during the winter from Cordele, Vienna, Fort Gaines, Edison, Augusta, Savannah, Butler Island, Brunswick, and Blackshear. Have been supplying interested parties with Vedalia material from our Albany, Ga.,

station. It appears that the cottony-cushion scale is more abundant than usual and that outbreaks are occurring earlier than in former years.

Alabama

J. M. Robinson (February 23): The cottony-cushion scale is abundant on *Pittisporum* at Eufaula and Mt. Vernon.

PURPLE SCALE (*Lebidosaphes beckii* Newm.)

Florida

J. R. Watson (February 23): The purple scale has been actively laying eggs and there are many crawlers on the trees. *Sphaerostilbe* has been growing markedly on the purple scale.

SOFT SCALE (*Coccus hesperidum* L.)

Mississippi

H. Dietrich (February 21): The soft brown scale is very abundant on Satsuma at Lucedale.

CITROPHILUS MEALYBUG (*Pseudococcus gahani* Green)

California

E. O. Essig (February 17): The citrophilus mealybug is moderately abundant in the San Francisco Bay region of northern California.

FIGS

GREEN SHIELD SCALE (*Pulvinaria psidii* Mask.)

Florida

E. W. Berger and G. B. Merrill (February 22): The green shield scale is very abundant, and particularly severe on Florida strangler figs (*Ficus aurea*), but also bad on guavas.

CAMPHOR SCALE (*Pseudaonidia duplex* Ckll.)

Mississippi

F. P. Ansler (February 15): The camphor scale was taken on a shipment of fig cuttings from Bay St. Louis, Hancock County, the first week in February. This scale has also been found at Logtown, Hancock County.

TRUCK - CROP INSECTS

VEGETABLE WEEVIL (Listroderes obliquus Gyll.)

Alabama

J. M. Robinson (February 23): The vegetable weevil is reported on lettuce and turnips at Petrey, and on turnips at Flowerton, Auburn, and Evergreen.

Mississippi

M. M. High (January 8): During the past days the weevil has been found in the following counties: Itawamba, Union, Prentiss, and Tishomingo. The weevil has been found breeding on two wild plants not heretofore recorded.

C. Lyle (February 22): These larvae have probably attracted more attention in Mississippi during 1932 than any other insect, complaints of serious damage to turnips, collards, cabbage, onions, and other garden crops having been received during January and February.

SPOTTED CUCUMBER BEETLE (Diabrotica duodecimpunctata Fab.)

Virginia

H. G. Walker (February 26): The spotted cucumber beetle has been more or less active on warm days in an alfalfa field at the Virginia Truck Experiment Station during January and February.

South Carolina

A. Lutken (February 22): Spotted cucumber beetles are moderately abundant in general.

J. N. Tenhet (January 15): This cucumber beetle has been unusually abundant and active all fall and winter at Fairfax. Apparently it has not gone into winter quarters at all, as it has been observed almost every week since September. During the early fall, autumn flowers - chrysanthemums, Michaelmas daisies, etc. were severely injured. At present, all garden crops are being more or less injured. Strawberry blossoms are also being injured by them.

BANDED CUCUMBER BEETLE (Diabrotica balteata Lec.)

South Carolina

A. Lutken (February 22): D. balteata is moderately abundant on turnips in Colleton County.

Mississippi

H. Dietrich (February 21): The banded cucumber beetle has been active all winter in George, Greene, and Perry Counties, nearly as common as D. duodecimpunctata. This beetle was not observed during the two previous winters.

STRIPED CUCUMBER BEETLE (Diabrotica vittata Fab.)

Mississippi

C. Lyle and assistants (February): The striped cucumber beetle was reported as very abundant at Gulfport, February 15, and moderately abundant at Meridian, February 20. (Abstract, G. M.)

FLEA BEETLES (Halticinae)

Mississippi H. Dietrich (February 21): Fleabeetles (Phyllotreta bipustulata Fab., P. vittata Fab., Systema taeniata Say) were very abundant on young turnip greens at Lucedale on February 12 and did considerable damage by eating the foliage full of holes.

A BLISTER BEETLE (Meloe americanus Br. & Er.)

Tennessee S. Marcovitch (January 18): This oil beetle, sent in from Whitewell, was reported as attacking mustard.

FALSE CHINCH BUG (Nysius ericae Schill.)

North Carolina W. J. Reid, jr. (February 21): The false chinch bug was found in moderate numbers on garden plantings of turnip and mustard. Approximately 25 per cent of the plants were affected.

South Carolina A. Lutken (February 22): False chinch bugs are abundant on truck crops in the southeastern part of the State.

J. N. Tenhet (January 15): The false chinch bug is seriously injuring vegetables in several gardens around Fairfax. Lettuce, cabbage, mustard, turnip, and carrot are known to have been attacked. Several plantings of mustard and turnip have been killed.

Georgia W. J. Reid, jr. (February 19): An unusually heavy infestation of the false chinch bug has caused serious injury to turnip and mustard in garden and small-scale commercial plantings at Waycross. According to the growers the insect first appeared on the garden plants during the latter part of December, and since that time the pest has gradually increased in numbers and destructiveness; ^{most of} the early plantings were entirely destroyed and were abandoned. The false chinch bug was taken from chickweed, life everlasting, sour dock, and grasses.

Mississippi C. Lyle and assistants (February): The false chinch bug was very abundant during the fall on truck crops, particularly turnip; damage continued into January in Lauderdale, Green, and George Counties. Specimens were received from Sturgis on February 4 with a report that they were very abundant on turnips. (Abstract, G. M.).

THREE-CORNERED ALFALFA HOPPER (Stictocephala festina Say)

Mississippi H. Dietrich (February 21): The three-cornered alfalfa hopper has been active in numbers all winter near Lucedale and at Merrill on turnips, collards, mustard greens, and peas.

SEED CORN MAGGOT (Hylemyia cilicrura Rond.)

Alabama K. L. Cockerham (February 25): This insect was found quite generally over a 5-acre field of early planted corn at Foley.

Mississippi

C. Lyle (February 22): Injury to onions by the larvae was reported from Florence early in January and from Laurel on February 11. Inspector R. P. Colner reported serious injury to English peas at Kreole, on January 23, while Inspector F. P. Ansler found these insects injuring iris bulbs at Gulfport on January 29.

PILLBUGS (Oniscidae)

Mississippi

C. Lyle and assistants (February): Numerous complaints are being received from the southwestern corner of the State of injury by pillbugs to strawberries and flower gardens. (Abstract, G. M.)

PEAS

PEA APHID (Illinoia pisi Kalt.)

Virginia

H. G. Walker (February 26): Pea aphids were observed actively feeding in alfalfa on February 4.

Alabama

J. M. Robinson (February 23): Plant lice are reported on English peas at Troy.

Mississippi

H. Dietrich (February 21): The pea aphid was first observed in numbers on peas at Lucedale on February 17 but since then has been found all over George County and threatens the crop of about 200 acres unless measures are taken to reduce the infestation. It is also reported from other points in southern Mississippi.

CABBAGE

IMPORTED CABBAGE WORM (Ascia rapae L.)

South Carolina

A. Lutken (February 22): Common cabbage worms have been active throughout the winter in Charleston County.

Georgia

J. B. Gill (February 22): The imported cabbage worm has been very abundant and damaging to cabbage in Cairo and Calvary Counties during the winter.

Mississippi

C. Lyle and assistants (February): The imported cabbage worm was present on collards all winter and is now attacking young cabbage in the southern part of Jackson County; the first adults at Lucedale were observed flying over cabbage fields on February 8, and since that time they have become very numerous. (Abstract, G. M.)

DIAMOND-BACK MOTH (Plutella maculipennis Curt.)

Virginia

H. G. Walker (February 26): The diamond-back moth has been present in kale fields at Norfolk throughout the winter. The present indications are that this insect will be very troublesome this spring unless its natural enemies tend to hold it in check more than they did last year.

South Carolina

W. J. Reid, jr. (December 18): The diamond-back moth is very abundant on winter collards and cabbage in the vicinity of Charleston. As many as 50 larvae have been found feeding on one collard leaf. The market value of the crops is being seriously lessened because of the feeding. (February 24): Cabbage plantings in this section are showing the heaviest infestation ever witnessed by the writer. All commercial plantings examined show infestation. A count in one of the typically infested fields showed an infestation of 85 per cent of the plants. The plants in many instances are being riddled. This infestation of spring cabbage followed one on the winter cabbage and collard plantings. Development of the species progressed unchecked during the unusually mild, dry winter.

Georgia

J. B. Gill (February 22): This insect was commonly observed on cabbage and collard plants in southern Georgia during the winter.

W. J. Reid, jr. (February 19): Found in moderate numbers on garden mustard plantings in the Waycross section.

Texas

S. W. Clark (January 19): This insect is very abundant and causing considerable damage to heading cabbage at Weslaco. In most cases the variety Glory of Enkhuizen is the most severely infested.

CABBAGE LOOPER (Autographa brassicae Riley)

Mississippi

C. Lyle and assistants (February): The cabbage looper has been present all winter on collards and was noted February 19 attacking young cabbage in the southern part of Jackson County. The first larva to be observed at Lucedale was noted on collards January 21. By the middle of February it was noted in moderate abundance around Long Beach, Harrison County. (Abstract, G. M.)

CABBAGE WEBWORM (Hellula undalis Fab.)

South Carolina

W. J. Reid, jr. (December 18): The cabbage webworm is now proving very destructive to young cabbage plants in the beds seeded for transplanting the spring crop. The infestation is general throughout the Charleston section. One bed examined showed an infestation of 25 per cent and another of 48 per cent of the plants. The buds of the plants are being at-

tacked, most of the affected plants being rendered unfit for transplanting.

Mississippi

C. Lyle and assistants (February): Larvae were extremely abundant in gardens in George County during November, 1931. The insect was also reported from Harrison County.

CABBAGE APHID (Brevicoryne brassicae L.)

Virginia

H. G. Walker (February 26): A very heavy infestation of cabbage aphids developed on kale last November but practically 100 per cent of these insects were killed by a fungus disease the latter part of the month and have not been numerous enough since then to cause any damage.

South Carolina

A. Lutken (February 22): Aphids on broccoli have been very destructive in Beaufort County.

Georgia

J. B. Gill (February 22): The cabbage aphid was very abundant on collard plants in southern Georgia during the winter.

Mississippi

J. P. Kislanko (February 15): Infestations were rather heavy in Stone and Forrest Counties, but today all observed colonies were very heavily parasitized.

HARLEQUIN BUG (Murgantia histrionica Hahn)

Virginia

L. W. Brannon (February 24): Frequent field observations on winter activity and hibernation were made at Norfolk during November and December, 1931, and January and February, 1932. At temperatures below 50° F. (at time of observation) the adults were found in temporary hibernation in the folds of dead leaves beneath the plants; at higher temperatures they were active and feeding throughout the winter. During this exceptionally mild winter newly laid eggs have been found during each week of the months listed. On February 18, 9 newly laid egg masses were found on collard plants, and on February 5 newly hatched eggs were found. Nymphs have been found during each month and continued to develop into adults during the winter. Nymphs have been found in temporary hibernation in the folds of dead leaves alongside adults in January. One egg mass which was collected in the field on January 22 hatched in the insectary on February 12. The egg parasite Ooencyrtus johnsoni How. emerged on January 8 from eggs which were collected in the field on January 5.

Georgia

J. B. Gill (February 22): The harlequin bug is very abundant, especially on collards in Albany and in southern Georgia.

Virginia

C. R. Willey (February 23): Specimens were received from Roseland February 12 and damage to cabbage was reported.

CELERY

CELERY LEAF TIER (Phlyctaenia rubigalis Guen.)

Florida

J. R. Watson (February 23): The celery leaf tier has been giving much trouble in the Sanford area.

ONIONS

ONION THRIPS (Thrips tabaci Lind.)

Mississippi

C. Lyle and assistants (February): The onion thrips was found extremely abundant on field onions at Lucedale on February 18; a moderately abundant infestation has been reported from the southern part of Jackson County. (Abstract, G. M.)

TURNIP

TURNIP APHID (Rhopalosiphum pseudobrassicae Davis)

South Carolina

W. J. Reid, jr. (December 18): Young cabbage plants growing in beds for transplanting the spring crop are being seriously injured. The infestation is quite general in the Charleston area. One plant bed showed an infestation of 100 per cent of the plants. The growers fear that the infestation will reduce the plants to the extent that they will not have sufficient plants to set the spring crop.

Mississippi

C. Lyle and assistants (February): During December, 1931, turnip aphids were noted in moderate abundance on turnip in Lincoln, Copiah, and Jeff Davis Counties, and so abundant in Green, George, and Perry Counties as to destroy many crops. (Abstract, G. M.)

CARROTS

CARROT RUST FLY (Psila rosae Fab.)

Washington

W. W. Baker (February): Growers are beginning to worry some about this pest on carrots and parsnips in Puyallup Valley, Although only a few reports have been received of damage on the latter crop, perhaps because of the smaller acreage. So far no reports have been received of damage to celery in this section.

LETTUCE

CORN EAR WORM (Heliothis obsoleta Fab.)

Florida E. W. Berger and G. B. Merrill (February 22): A few specimens were collected and reared from among the bases of the leaves, next to the core of loosely-growing head-lettuce (Iceberg). Saw no signs of boring through leaves but evidently crawled in among leaves to cores.

STRAWBERRY

STRAWBERRY PANERA (Orthaea vineta Say)

Florida J. R. Watson (February 23): The panera, that we do not ordinarily expect until April, has been troubling us all winter.

CRANE FLIES (Tipulidae)

Oregon J. Wilcox and W. W. Baker (November 19, 1931): Larvae about $1\frac{1}{2}$ inches long found right down in the roots of strawberry plants; from 2 to 16 per plant. Some evidence of the smaller roots being eaten but did not appear to be serious. Another infestation at Lexington was examined but the plants were so heavily infested with the root weevils Brachyrhinus ovatus L. and B. rugosotriatus Goeze that it was impossible to tell whether the tipulids were doing injury or not.

TOBACCO

TOBACCO FLEA BEETLE (Eotrix parvula Fab.)

North Carolina Z. P. Metcalf (February 26): The tobacco flea beetle is very abundant in tobacco beds in the eastern half of the State. It is more abundant and destructive than I have seen it in a number of years.

Alabama K. L. Cockerhan (February 25): The tobacco flea beetle was observed to be quite numerous on volunteer Irish potato plants at Foley on this date.

F O R E S T A N D S H A D E - T R E E I N S E C T S

CANKER WORMS (*Geometridae*)

Kansas

H. B. Hungerford (February 15): We had a rather heavy emergence of the fall canker worm in Lawrence during December and January.

R. L. Parker (February 23): The first emergence of canker worms at Manhattan was noted on January 5. The first spring canker worm (*Paleacrita vernata* Peck) female was recorded on January 25 while the highest emergence of females representing the fall canker worm (*Alsophila pomotaria* Harr.) was recorded on February 9. The highest emergence of males including both species occurred on February 9. The highest emergence of spring canker worm females to date occurred on February 22.

FALL WEBWORM (*Hyphantria cunea* Drury)

Maine

H. B. Peirson (February 23): Nests contain large numbers of *Apanteles* cocoons, which would indicate that the heavy outbreak of last year will subside.

WALKINGSTICK (*Diapheromera femorata* Say)

Michigan

S. A. Graham (January 20): The walkingstick, which in 1930 caused a great deal of defoliation in certain of the forests in the northern part of the lower peninsula, did not make its appearance in 1931. This was somewhat of a surprise in spite of the fact that some of the local people had told me previously that outbreaks only occurred every other year. Search in the litter beneath the trees indicated that the eggs normally pass through two winters before hatching. The ground at the present time in those places where the insects were abundant last year is literally peppered with eggs. In some spots they run as high as 50 or more per square foot. Doubtless next year will see another outbreak of this insect. The holding over of the eggs which I have just described is evidently the result of the action of some physical condition which we do not understand, because eggs collected in the fall of 1930 and kept outdoors in Ann Arbor hatched last spring, whereas those that lay on the ground in the locality where they were laid failed to hatch.

COYSTER-SHELL SCALE (*Lepidosaphes ulmi* L.)

Maine

H. B. Peirson (February 23): Poplar, white birch, and mountain ash were killed at Bar Harbor in December, 1931.

BEECH

BEECH SCALE (Cryptococcus fagi Baer)

Maine H. B. Peirson (February 23): Outbreaks reported in Liberty, Montville, Washington, Somerville, and Palermo were reported during November and December, 1931. First appearance in State.

FIR

AN APHID (Dreyfusia picea Ratz.)

Maine H. B. Peirson (February 23): One thousand cords of fir were killed by this insect at Milbridge in 1931.

HENLOCK

STRAWBERRY ROOT WEEVIL (Brachyrhinus ovatus L.)

New York P. J. Parrott (February 23): The strawberry root weevil has been injuring henlock roots in western New York.

MAPLE

ORIENTAL MOTH (Cnidocampa flavescens Walk.)

Massachusetts E. P. Felt (February 24): Cocoons of the oriental slug caterpillar were received from Nahant, where the insect was evidently abundant upon Norway maple.

AN AMBROSIA BEETLE (Xyloterinus politus Say)

Rhode Island E. P. Felt (February 24): An ambrosia beetle, X. politus, was found working in a limb of a Norway maple in the Providence area. This insect occasionally attacks apparently healthy trees, though serious injury does not appear to develop from its operations.

GLOOMY SCALE (Chrysomphalus tenebricosus Const.)

North Carolina Z. P. Metcalf (February 26): The gloomy scale is widespread and apparently more destructive than for the last couple of years.

Mississippi J. Milton (February 22): The gloomy scale is present in large numbers on maple trees in Corinth and northeastern Mississippi. In many cases the scale has killed so many branches that it has made the trees very unsightly.

OAK

OBSURE SCALE (Chrysomphalus obscurus Comst.)

Mississippi J. Milton (February 22): The obscure scale is very abundant on oak in Corinth; it is killing many limbs and weakening the whole tree.

PINE

EUROPEAN PINE SHOOT MOTH (Rhyacionia buoliana Schiff.)

Massachusetts E. P. Felt (February 24): The European pine shoot moth was reported by Mr. C. C. Hartney as prevalent at Brookline.

New England E. P. Felt (February 24): This insect is locally abundant in southern New England and southeastern New York, occasionally infesting seriously entire plantings.

NANTUCKET PINE SHOOT MOTH (Rhyacionia frustrana Scudd.)

Pennsylvania J. N. Knull (January 29): A small plantation of jack pine and shortleaf pine at Whitford was found heavily infested. The trees had been severely damaged for a number of years. A heavy infestation was found near Reading in a plantation of pitch pine, Scotch pine, Jersey scrub pine, shortleaf pine, and red pine. The insect seemed to show a preference for the shortleaf pine.

SPRUCE BUDWORM (Hartologa funiferana Clem.)

Michigan S. A. Graham (January 20): The spruce budworm continued its injury during 1931 to the hard pines, especially to jack pine and Scotch pine plantations. The latter was especially seriously injured and some of the plantations in the Higgins Lake Forest may be practically wiped out. The damage to jack pine is somewhat less and to Norway pine the injury is by no means general. The most severe injury seems to have occurred in the neighborhood of old trees. In some places it appears likely that the infestation will not be so severe during 1932 as it was in 1931. In other places even in the same locality the infestation seems to be on the increase. In those places where the infestation is probably declining, a marked change in sex ratio was observed. Previously the sexes were approximately equal in number but this year from 75 to 80 per cent of the moths were males.

SOUTHERN PINE WEEVIL (Pissodes nemorensis Germ.)

Mississippi H. Dietrich (February 21): P. nemorensis was again very abundant on Cedrus deodara throughout the winter, doing considerable injury by feeding and girdling the main shoot, but does not seem to have oviposited on Cedrus. An adult was taken in the debris

at the base of a freshly cut Pinus glabra near New Augusta on February 11.

BALS WEEVIL (Hylobius cates Boh.)

Mississippi

H. Dietrich (February 21): Active all winter in George and Greene Counties on injured pines and fresh pine lumber. At Lucedale taken often feeding on injuries made on Cedrus deodara by Pissodes nemorensis.

SPRUCE

SITKA SPRUCE WEEVIL (Pissodes sitchensis Hopk.)

Washington

W. W. Baker (November 11, 1931): A number of Sitka spruce trees close to the road were observed to be infested at Snoqualmie.

WILLOW

WILLOW CURCULIO (Cryptorhynchus larathi L.)

Washington

W. W. Baker (February): During the winter months evidence has been secured of infestations of willows over a considerable area around Puyallup and Tacoma. Strange to say, only native species of willow have so far been found to be infested.

INSECTS AFFECTING GREENHOUSE AND
ORNAMENTAL PLANTS AND LAWNS

AN AMBROSIA BEETLE (Anisandrus sayi Hopk.)

New York

E. P. Felt (February 24): An ambrosia beetle, provisionally identified as A. sayi, attacked the larger stems of greenhouse grapes on Long Island in large numbers. The infested stems were approximately an inch and a half in diameter and produced literally hundreds of beetles.

GREENHOUSE WHITEFLY (Trialeurodes vaporariorum Westw.)

North Dakota

J. A. Munro (February 23): Reports of serious injury to ferns and other house plants by the greenhouse whitefly have been received recently from Dazey, Barnes County, and Regent, Hettinger County.

CYCLAMEN

CYCLAMEN MITE (Tarsonemus pallidus Ets.)

Ohio E. W. Mendenhall (January 9): Cyclamen plants were badly infested with the cyclamen mite in one of the greenhouses in Fostoria. They were so bad that the buds were badly injured, rendering the plants unsalable.

GLADIOLI

GLADIOLUS THRIPS (Tabniothrips gladioli Moulton)

Florida J. R. Watson (February 23): The gladiolus thrips has been sent in from Stuart and Sanford, the first reports from Florida.

I N S E C T S A T T A C K I N G M A N A N D
D O M E S T I C A N I M A L S

MAN

MOSQUITOES (Culicinae)

Missouri L. Haseman (February 22): Mosquitoes: Species of Culex and Anopheles have carried over in greater numbers than usual in basements.

Mississippi C. Lyle and assistants (February): Mosquitoes, including the salt-marsh mosquito (Aedes sollicitans Walk.), and the yellow-fever mosquito (A. aegypti L.) have been very annoying in south-eastern Mississippi all winter. (Abstract, G. M.)

CHIGGER (Trombicula irritans Riley)

Texas F. C. Bishopp (February): A few chiggers were picked up by the writer in Brownsville (in town) with little time spent in grass and none in woods and brush. Mr. Schroeder says that he had a good many chiggers on him this winter.

CASTOR BEAN TICK (Ixodes ricinus var. scapularis Say)

Mississippi H. Dietrich (February 21): Woodticks have been active all winter, judging by several collected in the Pascagoula Swamp, George County. Two were identified by F. C. Bishopp as I. ricinus var. scapularis.

BLACK WIDOW (Latrodectus mactans Fab.)

Maryland

P. Knight (February 16): We have made numerous collections of this spider during the winter, both at College Park and in southern Maryland. In my 7 years at the University this is the first season I have collected these animals.

Mississippi

State Plant Board Press Release (January 18): A specimen of the "black widow" or hourglass spider was received by the Department of Entomology recently with the statement that it had bitten a lady near Anory with very serious results. Severe pain began immediately after the bite, and within an hour her entire body was jerking with muscular spasms. Her lower limbs also became partially paralyzed and her suffering, which she reported as the most severe in her life, was eased by hypodermic injections. She was in bed suffering greatly for three days and two nights, and did not fully recover for nine days.

H. Dietrich (February 21): The black widow (L. mactans) is unusually common this winter in George, Greene, and Perry Counties. Every piece of wood lying on the ground in cut-over lands has one or more of these spiders under it. As this wood, locally called lighter, is gathered extensively for fuel and fence-posts, there is considerable danger of a person being bitten.

BOXELDER BUG (Leptocoris trivittatus Say)

Maryland

E. H. Cory (February): We have received a number of letters stating that this pest has been active on warm days.

Illinois

W. P. Flint (February 23): Boxelder bugs have been active throughout the entire winter and have caused a great amount of annoyance because of their continued invasion of houses.

Kentucky

W. A. Price (February 24): Boxelder plant bugs were abundant about houses on February 11, at Elizabethtown.

Wisconsin

E. L. Chambers (February 24): The boxelder bug is still causing some concern in some sections where, during the warm spring-like days, it became active and continued crawling into and about houses.

Iowa

H. E. Jaques (February 22): On the warmer days boxelder bugs are much in evidence.

Kansas

R. C. Smith (February 23): Boxelder bugs are very active and are causing considerable annoyance in residences at Manhattan.

Utah

G. F. Knowlton (February 23): Boxelder bugs are now commencing to cause some annoyance in houses, since the weather has at times permitted activity and emergence from hibernation.

TROPICAL RAT MITE (Liponyssus bacoti Hirst.)

Maryland

A. L. Sullivan (January): The tropical rat mite has been reported in Baltimore attacking humans. Specimens were sent in from a seed house.

CATTLE

A BUFFALO GNAT (Eusimulium pecuarum Riley)

Mississippi

C. Lyle (February 22): Buffalo gnats appeared in the Delta section of Mississippi about January 15, probably the earliest date on record for this section. They are reported as present in injurious numbers in practically all counties of the Mississippi Delta. No serious loss of livestock has yet occurred.

CATTLE GRUBS (Hypoderma spp.)

North Dakota

J. A. Munro (January and February): Reports of grubs in the backs of cattle have been received from Dickey, Golden Valley, and Rolette Counties during January and February. Officials of the local meat-packing plant state that a large number of cattle badly infested with cattle grubs were received during these two months.

Kansas

E. G. Kelly (February 23): Cattle grubs are more abundant in Kansas than usual. Puparia have been picked up off the ground where they have dropped and adults have emerged from them when the puparia were retained in the laboratory at Manhattan.

HORN FLY (Haematobia irritans L.)

Florida

W. G. Bruce (January): Stockmen report and observations show that the hornfly is giving more trouble in Florida than usual.

Texas

H. O. Schroeder and F. C. Bishopp (January): Hornflies are present in moderate numbers, 5 to 50 per head. The dairymen report that these flies have been very troublesome all winter. The cows show severely irritated spots at the base of the tail and along the escutcheon and in the navel region from bites.

SORE WORM (Cochliomyia macellaria Fab.)

Texas

H. O. Schroeder and F. C. Bishopp (January): A freshly killed calf by the roadside 6 miles east of Rio Grande City was examined and several hundred blowflies were found on it. Of these there were about 1 Phormia regina Meig. to 15 Cochliomyia macellaria. The day was mild but the sun was not shining.

HOUSEHOLD AND STORED-PRODUCTS

INSECTS

TERMITES (Reticulitermes spp.)

General E. E. Snyder (January): During the month of January 74 cases of termites were reported to the Bureau of Entomology. The following list gives the number of cases reported from each Section. New England, 2; Middle Atlantic, 13; East Central, 10; West Central, 4; Cotton Belt, 29; Pacific Coast, 6.

A TERMITE (Keloterms simplicornis Eks.)

Arizona A. H. Caldwell, jr. (February 7): This termite was brought to my attention by a local control man at Phoenix. The interesting thing about this particular one is its habit of not living in the food alone, as do the other Keloterms, but it has its headquarters underground.

ANTS (Formicidae)

Mississippi C. Lyle and assistants (February): A number of native species of ants which ordinarily are noticed during the warm summer months have been active throughout most of the winter. Fire ants (Solenopsis sp.) were very abundant in sweetpotatoes banked in the open at Carthage, Durant, Lexington, and Lena, February 21. New infestations of the Argentine ant (Iridomyrmex humilis Mayr) were discovered at Harriston on January 23 and at Chester on February 18. (Abstract, G.M.)

Alabama J. M. Robinson (February 23): Argentine ants are reported at Auburn, Mobile, and Palos.

Louisiana Club and Extension News, Vol. 11, No. 4 (January): The Argentine ant is quite numerous in Concordia Parish.

A SPIDER BEETLE (Mezium americanum Lap.)

Maine H. B. Peirson (February 23): This spider beetle was observed January 27 in Gardiner. Fur coats and clothing were infested.

HOUSE CRICKET (Gryllus domesticus L.)

Michigan R. H. Pettit (January 9): The European cricket was found on January 7 at Birmingham. I believe this is the first record in our State.

A SNOW FLEA (Achorutes sp.)

Wisconsin E. L. Chambers (February 24): We have had several reports from northern Wisconsin cities, to the effect that the snow flea was unusually abundant.

INSECT CONDITIONS IN PORTO RICO OCTOBER 1, 1931, TO JANUARY 31, 1932.

M. D. Leonard

Insular Experiment Station, Rio Piedras, Porto Rico.

The coffee leaf miner (Leuconter coffeella Stainton) has been, according to Vicente Medina, Coffee Specialist at the Insular Experiment Station, more abundant during December, 1931, and January, 1932, than during the two previous months, owing to generally dry weather throughout the coffee-growing districts.

A leaf skeletonizer (Brenthia pavonacella Clem.) was reported by F. Sein, jr., as badly skeletonizing the leaves of Inga sp. an important coffee shade tree, throughout the coffee growing districts in general during December, 1931. This pest was generally present and badly skeletonizing these shade trees on a large coffee farm in the vicinity of Adjuntas (the Hacienda Carmelita) in September, 1931. It had not previously been recorded as injuring a plant of economic importance.

The cotton leaf worm (Alabama argillacea Hbn.) was reported as present on cotton in small numbers but easily controlled by two applications of poison on December 21, 1931, and January 15, 1932, respectively, and that in general throughout the South Coast up to February 1, 1932, it has apparently been almost negligible as far as the necessity for control measures was concerned.

The pink boll worm (Pectinophora gossypiella Saund.), according to all reports received has been very much less abundant and injurious to cotton in the whole South Coast during the period October, 1931, to and throughout January, 1932, than during January, 1931, for instance, when considerable percentages of infestation could be found. It has been suggested that a considerably greater rainfall this year than last during the same period may have been a large factor in this decrease. As late as January 20, 1932, J. Pastor Rodriguez, Cotton Specialist at the Insular Experiment Station, reported that a 1-acre field which was badly infested last year now showed less than 1 per cent infested bolls and that a near-by field was only about 5 per cent infested.

Owing to the extremely wet winter, the fall armyworm (Laphygma frugiperda S. & A.) has been exceptionally abundant, not only on corn, which one expects, but also inside pepper fruits, in tomatoes, inside lima bean pods, and causing most injury to eggplant, burrowing in the stems and attacking the fruit. Eighty per cent of the fruit one week was ruined by their feeding. (G. N. Wolcott.)

The melon worm (Diaphania hyalinata L.) was causing considerable foliage injury on January 4, 1932, to young cassava melon vines at Peiza; moderate damage was observed to squash foliage at Vega Alta in November, 1931, and to cucumber at Manati in January, 1932. In a well-sprayed cucumber field at Barceloneta only slight damage was caused to the leaves. (A. S. Mills.)

A bean pod borer (Maruca testulalis Geyer) was found to infest 2 per cent of 100 bean pods examined in the market at Rio Piedras on October 31, 1931 (C. G. Anderson; Carl Heinrich det.). During January, 1932, a light infestation was found in a small package of pigeon peas from Aguas Buenas but none were found in boxes of pigeon peas from several other places. Lima bean pods were lightly infested also at Vega Baja and Rio Piedras. (A. S. Mills.)

The caterpillars of Etiella zinckenella Treit. absolutely disappeared from lima beans early this fall, while Maruca, the pest against which the quarantine regulations are directed, is equally scarce this winter. (G. N. Wolcott.)

A bean leaf webber (Lamprosema indicata Fab.) was found to be moderately to heavily infesting all lima bean fields examined during November, December, and January at Rio Piedras, as well as at Loiza, Vega Baja, and Isabela; the larvae tying the leaves together and eating them.

A light infestation of Cephalonoryia gallicola Ashm. was found in a package of chickpeas in Santurce on November 11, 1931. (R. G. Oakley.)

A squash bug (Anasa scorbutica Fab.) was observed lightly infesting a 2-acre planting of squash at Vega Alta on November 24, 1931. (A. S. Mills.)

A light infestation of the bug Coreocoris batatas Fab. was noted on the leaves of a 5-acre field of pepper at Vega Alta on December 29, 1931. (A. S. Mills.)

A leaf bug, Cyrtopeltis varians Dist., was found lightly infesting the foliage of a 3-acre field of tomatoes at Loiza on November 6, 1931. (A. S. Mills.)

A eurytomid, Euphranta cubensis Ashm., was found infesting one out of four fruits (Annona reticulata) examined at Villalba, October 27, 1931. (C. G. Anderson; C. F. Muesebeck det.)

A scolytid beetle, Xyleborus sacchari Hopk., was reported as infesting two out of ten guava fruit examined at Cabo Rojo on September 16, 1931. (A. G. Harley.)

A leaf-footed plant bug, Leptoglossus stigma Hbst., was found to be abundant on the leaves of three guava bushes examined at Cidra on November 13, 1931, and many adults were found on a guava bush at Trujillo Alto on October 23, 1931. (A. S. Mills.)

A nitidulid beetle, Stelidota gerinata Say, was found feeding in the exocarp of bitter almond (Terminalia cataeopa) nuts at Anasco, September 29, 1931. (A. G. Harley.)

A nitidulid beetle, Uronhorus humeralis Fab., was observed in bitter almond (Terminalia catappa) fruits and Jobo (Spondias dulcis) at Arecibo, in October 1931. (R. S. Oakley.)

A lepidopterous shoot borer, Hyposiphya grandella Zell. (Heinrich det.) was reported on June 11, 1931, as injuring to a considerable extent about 4,000 trees planted among coffee for shade at Jayuya, and on June 29, 1931, 1,000 young trees recently planted in a coffee farm at Adjuntas. In mid-July F. Sein, jr., reported a number of young trees moderately infested in the Rural School planting at Lares.

Specimens of a midge, Sciara sp., which is a very serious pest of man and toads, were found near lights in the vicinity of Isabela. The midges first became noticeably abundant on October 28, rapidly increasing in abundance for the next two or three days, and gradually decreasing in numbers towards the middle of the month. They again became very abundant on November 28, and are still enormously abundant each night around lights (December 7). We eat dinner in the dark, and have entirely given up reading at night. By keeping a light on the porch we are able to manage some activities at night. It was to this light that the toads were accustomed to come each night and eat bugs attracted to it, but since the plague of midges, they have ceased to appear, although they are quite abundant in the surrounding region. The region infested by the midges is known to extend as far along the coast on the north as Quebradillas, but I have no information as to their presence south of Aguadilla. They come mostly to lights nearer the ground, and people living on the second story of houses are little troubled by them. (G.N.W.)

To date, February 4, 1932, we have had three distinct waves of abundance of Sciara sp.; October 28 to November 4, 1931; November 28 to December 15; January 7 to January 14, 1932. During this period some were to be found every night, but in the last week or two I have noted absolutely none at lights. During the periods of maximum abundance we ate in darkness, even one or two candles on the table attracting too many for comfort, despite electric lights blazing on the porch on either side of the dining room. It was impossible to prepare food in the kitchen after dark, except under the darkness of the ventilating hood. Yet, bad as conditions were for us on the ground floor, in the adjoining servants' quarters upstairs over the garage, no midges were present. (G. N. W.)